FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE

DIVISION OF THE STATE ARCHITECT - STRUCTURAL SAFETY (DSA-SS)

REGARDING THE ADOPTION OF THE 2005 NATIONAL ELECTRICAL CODE (NEC) FOR USE AS THE 2007 CALIFORNIA ELECTRICAL CODE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3

The California Building Standards Code (California Code of Regulations, Title 24, Part 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12) is published in its entirety every three years and is applicable to all buildings for which an application for a building permit is made during the Code's effective period. Each triennial edition of the California Building Standards Code becomes effective 180 days after its publication.

These proposed regulations will make effective the 2005 edition of the National Electrical Code (NEC) as the 2007 edition California Electrical Code, for application to public elementary and secondary schools, community colleges, and state-owned or state-leased essential services buildings. Further, these proposed regulations will repeal the 2002 edition NEC articles adopted as the 2004 edition California Electrical Code.

EXPRESS TERMS:

CALIFORNIA ELECTRICAL CODE - ARTICLE 89 Administrative

Continue Article 89 of the 2004 triennial edition of the California Electrical Code (CEC) for publication in the 2007 triennial edition of the California Electrical Code, with revisions as follows:

2002 State Article 89	2005 State Article 89	DSA-SS Adoption	Comments
89.1 Title		-	Repeal Section 89.1 of 2004 CEC
	89.101.1 Title	Х	Adopt new Section 89.101.1 (see express terms below)
89.2 Purpose		-	Repeal Section 89.2 of 2004 CEC
	89.101.2 Purpose	Х	Adopt new Section 89.101.2 (see express terms below)
89.3 Scope		-	Repeal Section 89.3 of 2004 CEC
	89.101.3 Scope	Х	Adopt new Section 89.101.3 (see express terms below)
89.4 Exempted from this Code		-	Repeal Section 89.4 of 2004 CEC
	89.101.4 Appendices	Х	Adopt new Section 89.101.4 (see express terms below)
89.5 Non-Building Standards, Orders and Regulations		-	Repeal Section 89.5 of 2004 CEC
	89.101.5 Referenced Codes	Х	Adopt new Section 89.101.5 (see express terms below)

89.6 Order of Precedence and Use		-	Repeal Section 89.6 of 2004 CEC
	89.101.6 Non- Building Standards, Orders and Regulations	Х	Adopt new Section 89.101.6 (see express terms below)
89.7 Application		-	Repeal Section 89.7 of 2004 CEC
	89.101.7 Order of Precedence and Use	Х	Adopt new Section 89.101.7 (see express terms below)
89.8 Adopting Agency		-	Repeal Section 89.8 of 2004 CEC
	89.101.8 City, County, or City and County Amendments, Additions or Deletions	Х	Adopt new Section 89.101.8 (see express terms below)
89.9 Format		-	Repeal Section 89.9 of 2004 CEC
	89.101.9 Effective Date of this Code	Х	Adopt new Section 89.101.9 (see express terms below)
89.10 Validity		-	Repeal Section 89.10 of 2004 CEC
	89.101.10 Availability of Codes	Х	Adopt new Section 89.101.10 (see express terms below)
89.11 Standard Reference Documents		-	Repeal Section 89.11 of 2004 CEC
	89.101.11 Format	Х	Adopt new Section 89.101.11 (see express terms below)
	89.101.12 Validity	X	Adopt new Section 89.101.12 (see express terms below)

CALIFORNIA ARTICLE 89 GENERAL CODE PROVISIONS

(Note: Adopt only those sections listed in the matrix adoption table.)

SECTION 89.101 GENERAL

89.101.1 Title. These regulations shall be known as the California Electrical Code, may be cited as such and will be referred to herein as "this code." The California Electrical Code is Part 3 of twelve parts of the official compilation and publication of the adoptions, amendment, and repeal of Electrical regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 2005 National Electrical Code of the National Fire Protection Association with necessary California amendments.

89.101.2 Purpose. The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation, and energy conservation; to preserve life and property from

fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.

- 89.101.3 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout the State of California.
 - 89.101.3.1 Non-State-Regulated Buildings, Structures, and Applications. Except as modified by local ordinance pursuant to Section 101.8, the building standards in the California Code of Regulations, Title 24, Parts 2, 3, 4, 5, 6, 9 and 10 shall apply to all occupancies and applications not regulated by a state agency.
 - 89.101.3.2 State-Regulated Buildings, Structures, and Applications. The model code, state amendments to the model code, and/or state amendments where there are no relevant model code provisions, shall apply to the following buildings, structures, and applications regulated by state agencies as referenced in the Matrix Adoption Tables and as specified in sections 102 through 113, except where modified by local ordinance pursuant to Section 101.8. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the State Legislature.

Note: See Preface to distinguish the model code provisions from the California provisions.

- 1. <u>State-owned buildings, including buildings constructed by the Trustees of the California State University, and to the extent permitted by California laws, buildings designed and constructed by the Regents of the University of California, and regulated by the Building Standards Commission. See section 89.102 for additional scope provisions.</u>
- 2. <u>Local detention facilities regulated by the Board of Corrections.</u> See section 89.103 for additional scope provisions.
- 3. <u>Barbering, cosmetology or electrolysis, establishments, acupuncture offices, pharmacies, veterinary facilities, and structural pest control locations regulated by the Department of Consumer Affairs. See section 89.104 for additional scope provisions.</u>
- 4. <u>Energy efficiency standards regulated by the California Energy Commission. See section 89.105 for additional scope provisions.</u>
- 5. <u>Dairies and places of meat inspection regulated by the Department of Food and Agriculture. See section 89.106 for additional scope provisions.</u>
- 6. <u>Organized camps, laboratory animal quarters, public swimming pools, radiation protection, commissaries serving mobile food preparation vehicles, and wild animal quarantine facilities regulated by the Department of Health Services. See section 89.107 for additional scope provisions.</u>
- 7. <u>Hotels, motels, lodging houses, apartment houses, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing, and other types of dwellings containing sleeping accommodations with common toilets or cooking facilities. See section 89.108 for additional scope provisions.</u>
- 8. Accommodations for persons with disabilities in buildings containing newly constructed covered multifamily dwellings, new common use spaces serving existing covered multifamily dwellings, additions to existing buildings where the addition alone meets the definition of a covered multifamily dwelling, and common-use spaces serving covered multifamily dwellings which are regulated by Department of Housing and Community Development. See section 89.108 for additional scope provisions.
- 9. <u>Permanent buildings and permanent accessory buildings or structures constructed within mobilehome parks and special occupancy parks regulated by the Department of Housing and Community Development.</u> See section 89.108 for additional scope provisions.

- 10. <u>Accommodations for persons with disabilities regulated by the Division of the State</u> Architect. See section 89.109.1 for additional scope provisions.
- 11. <u>Public elementary and secondary schools, community college buildings, and state-owned or state-leased essential service buildings regulated by the Division of the State Architect. See section 89.109.2 for additional scope provisions.</u>
- 12. Qualified historical buildings and structures and their associated sites regulated by the State Historical Building Safety Board with the Division of the State Architect. See section 89.109.3 for additional scope provisions.
- 13. <u>General acute care hospitals, acute psychiatric hospitals, skilled nursing and/or intermediate care facilities, clinics licensed by the Department of Health Services, and correctional treatment centers regulated by the Office of Statewide Health Planning and Development. See section 89.110 for additional scope provisions.</u>
- 14. Applications regulated by the Office of State Fire Marshal include but are not limited to the following in accordance with Section 89.111:
 - 1. Buildings or structures used or intended for use as an:
 - 1.1. Asylum, jail
 - 1.2. Mental hospital, hospital, home for the elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity
 - 1.3. Theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building, or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education
 - 1.4. Small family day care homes, large family day-care homes, residential facilities and residential facilities for the elderly, residential care facilities
 - 1.5. State institutions or other state-owned or state-occupied buildings
 - 1.6. High rise structures
 - 1.7. Motion picture production studios
 - 1.8. Organized camps
 - 1.9. Residential structures
 - 2. Tents, awnings or other fabric enclosures used in connection with any occupancy
 - 3. Fire alarm devices, equipment and systems in connection with any occupancy
 - 4. Hazardous materials, flammable and combustible liquids
 - 5. Public school automatic fire detection, alarm, and sprinkler systems
- 15. <u>6. Wildland urban interface fire areas</u>
- 16. Public libraries constructed and renovated using funds from the California Library Construction and Renovation Bond Act of 1988 and regulated by the State Librarian. See section 89.112 for additional scope provisions.
- 17. <u>Graywater systems regulated by the Department of Water Resources.</u> See section 89.113 for additional scope provisions.
- 89.101.3.3 (Relocated from 2004 CEC 89.4) 89.4 Exempted from this Code. This Code does not cover:
- (A) 1. Installations in ships, watercraft other than floating dwelling units, railway rolling stock, aircraft, automotive vehicles, commercial coaches, mobilehomes, and recreational vehicles.
- (B) 2. Installations underground in mines, mine shafts and tunnels.
- (C) 3. Installations of railways for generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations used exclusively for signaling and communication purposes.
- (D) 4. Installation of communication equipment under the exclusive control of communication utilities, located

outdoors or in building spaces used exclusively for such installations.

(E) <u>5.</u> Installations under the exclusive control of electrical utilities for the purpose of communication, or metering; or for the generation, control, transformation, transmission, and distribution of electrical energy located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, etc., or outdoors by established rights on private property.

Exception to (D) 4 and (E) 5: In places of employment, the following shall apply: installations of conductors, equipment and associated enclosures subject to the jurisdiction of the California Public Utilities Commission, that are owned, operated and maintained by an electric, communications or electric railway utility, but not including conduit, vaults, and other like enclosures containing conductors and equipment of such a utility when located indoors or on premises not used exclusively for utility purposes, but do not apply to the utility's conductors and equipment therein.

(F) 6. Installations on highways or bridges.

89.101.4 Annexes. Provisions contained in the annexes of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code Section 18938 (b) for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law and Health and Safety Code Section 13869.7 for Fire Protection Districts. See section 89.101.8 of this code.

89.101.5 Referenced Codes. The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code. When this code does not specifically cover any subject related to building design and construction, recognized architectural or engineering practices shall be employed. The National Fire Codes and the Fire Protection Handbook of the National Fire Prevention Association are permitted to be used as authoritative guides in determining recognized fire-prevention engineering practices.

89.101.6 Non-Building Standards, Orders and Regulations. Requirements contained in the National Electrical Code, or in any other referenced standard, code or document, which are not building standards as defined in section 18909. Health and Safety Code, shall not be construed as part of the provisions of this code. For non-building standards, orders, and regulations, see other titles of the California Code of Regulations.

89.101.7 Order of Precedence and Use.

89.101.7.1 Differences. In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern.

89.101.7.2 Specific provision. Where a specific provision varies from a general provision, the specific provisions shall apply.

89.101.7.3 Conflicts. When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, the most restrictive requirement shall prevail.

89.101.8 City, County, or City and County Amendments, Additions or Deletions.

The provisions of this code do not limit the authority of city, county, or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with section 89.101.8.1. The effective date of amendments, additions, or deletions to this code of cities, counties, or city and counties filed pursuant to section 89.101.8.1 shall be the date filed. However, in no case shall the amendments, additions or deletions to this code be effective any sooner than the effective date of this code.

89.101.8.1 Findings and Filings.

1. The city, county, or city and county shall make express findings for each amendment, addition or deletion based upon climatic, topographical, or geological conditions.

Exception: Hazardous building ordinances and programs mitigating unreinforced masonry buildings.

2. The city, county, or city and county shall file the amendments, additions, or deletions expressly marked and identified as to the applicable findings. Cities, counties, cities and counties, and fire departments

- shall file the amendments, additions or deletions, and the findings with the California Building Standards Commission at 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833.
- 3. Findings prepared by fire protection districts shall be ratified by the local city, county, or city and county and filed with the California Department of Housing and Community Development at 1800 3rd Street, Room 260, Sacramento, CA 95814.
- 89.101.9 Effective Date of this Code. Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code.
- 89.101.10 Availability of Codes. At least one entire copy each of Titles 8, 19, 20, 24, and 25 with all revisions shall be maintained in the office of the building official responsible for the administration and enforcement of this code. See Health and Safety Code section 18942 (d) (1) & (2).
- 89.101.11 Format. This part fundamentally adopts the National Electrical Code by reference on a chapter-by-chapter basis. Such adoption is reflected in the Matrix adoption table of each chapter of this part. When the Matrix adoption tables make no reference to a specific chapter of the National Electrical Code, such chapter of the National Electrical Code is not adopted as a portion of this code.
- **89.101.12 Validity.** If any chapter section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes, or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.

CALIFORNIA ELECTRICAL CODE - ARTICLE 90 Introduction

Repeal Article 90 of the 2002 edition of the National Electrical Code and adopt Article 90 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

CALIFORNIA ELECTRICAL CODE - CHAPTER 1 General

Repeal Chapter 1 of the 2002 NEC and adopt Chapter 1 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Article	2005 NEC Article	DSA-SS Adoption	Comments
100	100	Х	
110	110	Х	

CALIFORNIA ELECTRICAL CODE - CHAPTER 2 Wiring and Protection

Repeal Chapter 2 of the 2002 NEC and adopt Chapter 2 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Article	2005 NEC Article	DSA-SS Adoption	Comments
200	200	Х	

210	210	Х	
215	215	X	
220	220	Х	
225	225	Х	
230	230	Х	
240	240	Х	
250	250	Х	
280	280	Х	
285	285	Х	

CALIFORNIA ELECTRICAL CODE - CHAPTER 3 Wiring Methods and Materials

Repeal Chapter 3 of the 2002 NEC and adopt Chapter 3 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Article	2005 NEC Article	DSA-SS Adoption	Comments
300	300	Х	
310	310	Х	
312	312	Х	
314	314	Х	
320	320	Х	
322	322	Х	
324	324	Х	
326	326	Х	
328	328	Х	
330	330	Х	
332	332	Х	
334	334	Х	
336	336	Х	
338	338	Х	

340	340	Х	
342	342	Х	
344	344	Х	
348	348	Х	
350	350	Х	
352	352	Х	
-	353	Х	New Article in 2005 NEC - High Density Polyethelene Conduit: Type HDPE Conduit
354	354	Х	
356	356	Х	
358	358	Х	
360	360	Х	
362	362	Х	
366	366	Х	
368	368	Х	
370	370	Х	
372	372	Х	
374	374	Х	
376	376	Х	
378	378	Х	
380	380	Х	
382	382	Х	
384	384	Х	
386	386	Х	
388	388	Х	
390	390	Х	
392	392	Х	
394	394	Х	
396	396	Х	
398	398	Х	

CALIFORNIA ELECTRICAL CODE - CHAPTER 4

Equipment for General Use

Repeal Chapter 4 of the 2002 NEC and adopt Chapter 4 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Article	2005 NEC Article	DSA-SS Adoption	Comments
400	400	Х	
402	402	Х	
404	404	X	
406	406	Х	
408	408	X	
-	409	Х	New Article in 2005 NEC - Industrial Control Panels
410	410	Х	
411	411	Х	
422	422	Х	
424	424	Х	
426	426	Х	
427	427	Х	
430	430	Х	
440	440	Х	
445	445	Х	
450	450	Х	
455	455	Х	
460	460	Х	
470	470	Х	
480	480	Х	
490	490	Х	

CALIFORNIA ELECTRICAL CODE - CHAPTER 5 Special Occupancies

Repeal Chapter 5 of the 2002 NEC and adopt Chapter 5 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC	2005 NEC	DSA-SS	Comments
Article	Article	Adoption	

500	500	Х	
501	501	Х	
502	502	Х	
503	503	Х	
504	504	Х	
505	505	Х	
-	506	Х	New Article in 2005 NEC - Zone 20, 21,and 22 Locations for Combustible Dusts, Fibers, and Flyings
510	510	Х	
511	511	Х	
513	513	Х	
514	514	Х	
515	515	Х	
516	516	X	
517	517	Х	
518	518	Х	
520	520	Х	
525	525	Х	
305	527	Х	
530	530	Х	
540	540	Х	
545	545	Х	
547	547	Х	
550	550	Х	
551	551	Х	
552	552	Х	
553	553	Х	
555	555	Х	
527	590	Х	Article 527 (Temporary Installations) of the 2002 edition NEC has been relocated into Article 590 of the 2005 edition NEC.

CALIFORNIA ELECTRICAL CODE - CHAPTER 6

Special Equipment

Repeal Chapter 6 of the 2002 NEC and adopt Chapter 6 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Article	2005 NEC Article	DSA-SS Adoption	Comments
600	600	Х	
604	604	Х	
605	605	Х	
610	610	Х	
620	620	Х	
625	625	Х	
630	630	Х	
640	640	Х	
645	645	Х	
647	647	Х	
650	650	Х	
660	660	Х	
665	665	Х	
668	668	Х	
669	669	Х	
670	670	Х	
675	675	Х	
680	680	Х	
-	682	Х	Article 682 (Natural and Artificially Made Bodies of Water) is new.
685	685	Х	
690	690	X	
692	692	X	
695	695	Х	

CALIFORNIA ELECTRICAL CODE - CHAPTER 7 Special Conditions

Repeal Chapter 7 of the 2002 NEC and adopt Chapter 7 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Article	2005 NEC Article	DSA-SS Adoption	Comments
700	700	Х	
701	701	Х	
702	702	Х	
705	705	Х	
720	720	Х	
725	725	Х	
727	727	Х	
760	760	Х	
770	770	Х	
780	780	Х	

CALIFORNIA ELECTRICAL CODE - CHAPTER 8 Communications Systems

Repeal Chapter 8 of the 2002 NEC and adopt Chapter 8 of the 2005 NEC without amendment for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Article	2005 NEC Article	DSA-SS Adoption	Comments
800	800	Х	
810	810	Х	
820	820		
830	830	Х	

CALIFORNIA ELECTRICAL CODE - CHAPTER 9 Tables

Repeal Chapter 9 of the 2002 NEC and adopt Chapter 9 of the 2005 NEC for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Table	2005 NEC Table	DSA-SS Adoption	Comments
1	1	Х	
-	2	Х	Table 2 (Radius of Conduit and Tubing Bends) is new.
4	4	Х	
5	5	Х	

5A	5A	Х	
8	8	Х	
9	9	Х	
11(A)	11(A)	Х	
11(B)	11(B)	Х	
12(A)	12(A)	Х	
12(B)	12(B)	Х	

CALIFORNIA ELECTRICAL CODE - Annex

DSA-SS does not propose to adopt Annex A, B, C, D , E, F or G of the 2005 NEC for publication in the 2007 triennial edition of the California Electrical Code.

2002 NEC Appendix	2005 NEC Annex	DSA-SS Adoption	Comments
А	А		
В	В		
С	С		
D	D		
E	E		
F	F		
-	G		Article 80 of the 2002 edition NEC has been relocated into Annex G of the 2005 edition NEC.

Authority: Education Code § 17310 and 81142, and H&S Code §16022.

Reference: Education Code §§ 17280 through 17317, and 81130 through 81147, and H&S Code §§16000

through 16023.